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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,690	12/27/2001	Stefaan De Cnodder	Q67666	9306

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SUGHRUE MION, PLLC
2100 Pennsylvania Avenue, NW
Washington, DC 20037-3213

EXAMINER

SOL, ANTHONY M

ART UNIT	PAPER NUMBER
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2619

MAIL DATE	DELIVERY MODE
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11/15/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/026,690

Applicant(s)

DE CNODDER ET AL.

Examiner

Anthony Sol

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- Applicant's Amendment filed 8/8/2007 is acknowledged.
- No claims have been amended, added, or canceled.
- Claims 1-16 remain pending.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 5-10, and 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Troxel (US Pat. 6,147,970) (hereinafter "Troxel") in view of Wang et al. (US Pat. 6,748,435) (hereinafter "Wang").

Regarding claims 1, 8, 15 and 16,

Troxel shows in fig. 11 holding a threshold value 102 or 104 depending on whether the packet was conforming or non-conforming in the first stage 88 for an aggregate token counter N 100 (claimed traffic reservation parameter), said threshold value lying between said minimum and said maximum value of said traffic reservation parameter.

Troxel discloses comparing the number of tokens the packet requires to aggregate token counter 100 minus aggregate headroom threshold value 104, which

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equals bh-bhr level of fig. 9 (claimed said actual value of said traffic reservation parameter exceeds said threshold value). Troxel further discloses that if there are enough tokens, then the packet may be marked conforming (claimed determining said packet marking of and marking each of said packets on said actual value of traffic reservation parameter)(col. 21, lines 3-12).

Troxel discloses comparing low priority packets to the value token counter 90 minus the normal priority threshold value 94, which equals blo level of fig. 9 (claimed actual value of said traffic reservation parameter is below said threshold value). Troxel further discloses that if there are not enough tokens, it is marked as non-conforming (claimed determining said packet marking of and marking each of said packets based on a pre-assigned priority of the packet)(col. 20, lines 37-55)

Troxel does not explicitly disclose metering said actual value of said traffic reservation parameter.

Wang teaches measuring the token bucket level (claim 1, 3rd element, token level indicator).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to include in Troxel a token bucket level measurement as taught by Wang for the purpose of determining whether to mark packet based on the available bandwidth (bucket level).

3. Regarding claims 2 and 9,

Troxel does not disclose one additional pre-assigned priority for each said packet.

Wang discloses a differentiated services code point (DSCP) by a traffic conditioning marker with one class of service called expedited forwarding (EF), which is ideal for real-time services such as IP telephony, video conferences, and other real-time applications (claimed pre-assigned priority). Chang further discloses that real-time services would be allocated only a small percentage of network capacity and would be assigned to a high-priority queue in the routers (suggests threshold)(col. 2, lines 11-61).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention was made to modify the marking determining method of Troxel so that an additional pre-assigned priority such as for EF class having a threshold value assigned to limited network capacity as disclosed by Wang. One skilled in the art would have been motivated to make the combination to balance the need for QoS assurances for real-time applications with the limited network resources allocated for them versus network resources allocated for non-real time traffic (col. 2, lines 35-39).

4. Regarding claims 3 and 10,

Troxel further discloses the reservation traffic parameter is the filling level of a token bucket (figures 9 and 10); Wang (figure 6, r bits/sec).

5. Regarding claims 5 and 12,

Wang further discloses the pre-assigned priority is a packet loss priority (column

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2, lines 59-61).

6. Regarding claims 6 and 13,

Troxel further discloses the pre-assigned priority is the packet traffic category (column 2, lines 45-49).

7. Regarding claims 7 and 14,

Wang further discloses the pre-assigned priority is a type of service (column 3, lines 7-13).

8. Claims 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Troxel in view of Wang, and in further view of Chang et al. (US Pat. 5,367,523) (hereinafter "Chang").

Regarding claims 4 and 11,

Troxel and Wang do not teach the reservation traffic parameter is the sending rate estimate. However, Chang discloses that the sending rate is used as the green token source rate (column 9, lines 22-27). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the reservation traffic parameter as the sending rate estimate for the purpose of controlling the congestion in the communication network.

Response to Arguments

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9. Applicant's arguments filed 8/28/2007 have been fully considered but they are not persuasive.

- The Applicant argues beginning on pg. 3 of the Remarks that low priority packets are marked non-conforming based on the token value, not based on a pre-assigned priority, as recited by the claims. In other words, the Applicant argues that Troxel does not take into account a previously assigned priority.
- The Examiner respectfully disagrees. Troxel discloses that high priority packets are compared to the direct value of token counter 90, whereas low priority packets are compared to the value of token counter minus the normal priority threshold value (see Troxel, col. 20, lines 46-51). Thus, even in the case of low priority packets being marked non-conforming, the pre-assigned priority of the packets is taken into consideration to determine what value the packets are to be compared against.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Sol whose telephone number is (571) 272-5949. The examiner can normally be reached on M-F 7:30am - 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on (571) 272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


WING CHAN 11/9/07
SUPERVISORY PATENT EXAMINER

AMS

11/9/2007